



via email (techforum@bpa.gov)

U.S. Department of Energy
Bonneville Power Administration
Transmission Services

Mar 30, 2023

Re: Comments of Renewable Northwest on the Proposed Generator Interconnection Queue Reforms Presented at the TC-25 March Workshops

Renewable Northwest (“RNW”) appreciates the opportunity to submit comments to the Bonneville Power Administration (“Bonneville”) concerning the TC-25 Tariff Proceeding workshops held on March 15, 2023 and March 16, 2023 (“March Workshops”).¹ The discussion was helpful in understanding Bonneville’s views on potential interconnection reforms. RNW hopes that the following feedback is helpful to Bonneville as the agency weighs the alternatives discussed at the March Workshops and looks forward to hearing more from Bonneville at the April workshops.

Overall, RNW believes a First Ready First Served (“FRFS”) cluster study process endorsed by the Federal Energy Regulatory Commission (“FERC”)² would be an improvement over the current First Come First Served (“FCFS”) serial study process, and agrees that deposit amounts could be increased. RNW cautions, however, that some of the alternatives Bonneville is considering could stymie development in the region. Bonneville must ensure that its transition methodology does more than simply “clear out” the existing queue. Any reforms adopted should enable the efficient processing of interconnection requests to help the region to meet its impending energy and capacity needs. If Bonneville hopes to implement an efficient interconnection process that is not overwhelmed shortly after the transition, the agency must pair queue reform with reforms to its transmission service and transmission planning processes so that its system can handle the number of new projects needed to meet the region’s clean energy goals.

¹ Additional details regarding the TC-25 Proceeding, including the presentation materials provided at the Workshop (“Presentation”) are available at <https://www.bpa.gov/energy-and-services/rate-and-tariff-proceedings/tc-25-tariff-proceeding>.

² Bonneville is considering reforms outlined in the FERC Improvements to Generator Interconnection Procedures and Agreements Notice of Proposed Rule, see 179 FERC ¶ 61,194 (June 16, 2022) (“Interconnection NOPR”), as well as those otherwise approved by FERC. See Presentation at 17 (highlighting PAC, MISO, PJM and SPP as other potential alternatives).

1. Bonneville Should Implement an FRFS Cluster Study Process

Bonneville’s current interconnection backlog and study delays mirror the issues FERC is trying to address with its Interconnection NOPR and warrants action. At the March Workshops, Bonneville shared statistics demonstrating an exponential increase in interconnection requests, which Bonneville has not been able to process under its current interconnection procedures.³ In the Interconnection NOPR, FERC proposed to eliminate the feasibility study option in favor of an annual cluster study process that would more efficiently address such backlogs.⁴ Bonneville is considering three FRFS alternatives: 1) the process set out in the FERC NOPR; 2) the FERC NOPR process with deviations similar to Bonneville’s TSR Study and Expansion Process (“TSEP”); and 3) other FERC-approved FRFS tariff filings.⁵

Adopting an annual cluster study process is an important first step to improving Bonneville’s interconnection queue timing. That said, RNW offers the following note for context: traditional generation is largely being replaced by renewable generation, which has a very different capacity factor. This means that one MW of conventional generation may be replaced by four or five MWs of new renewable generation. Exponential increases in the queue are therefore necessary to meet the region’s future energy and capacity needs and should be welcomed as part of the solution instead of cast as a problem. RNW applauds Bonneville’s efforts to reform its processes to allow more efficient interconnections.

Turning to specifics, RNW believes Bonneville should strongly consider the merits of the Southwest Power Pool (“SPP”) FERC-approved process, where study deposits are initially refundable and the amount of security deposit that is at risk is based on the network upgrade costs allocated during each cluster phase.⁶ RNW supports putting security at risk after every stage of the study process and, as discussed below, favors flat deposits that provide certainty to developers.

2. Readiness Requirements Should Allow Projects to Rise to the Top Without Eliminating Other Potentially Viable Projects

Bonneville is also considering readiness requirements in three areas: 1) study deposits, site control and commercial readiness. RNW generally supports an increase in study deposits, but questions whether these readiness reforms alone could facilitate the interconnection of non-speculative, commercially ready projects. For example, as noted above, Bonneville should explain whether and how it envisions any connections between the interconnection queue and

³ Presentation at 13-15.

⁴ Interconnection NOPR at P 64.

⁵ Presentation at 17.

⁶ *Southwest Power Pool, Inc.*, 178 FERC 61,015 at PP 18-19 (Jan. 14, 2022).

the transmission service request queue. Specific concerns with each readiness requirement are discussed below.

a. Study Deposits

With respect to study deposits, Bonneville proposed three alternatives: 1) the option set out in the FERC NOPR, whereby deposits would be paid in three tranches: prior to the cluster study, within 20 days of receiving the results, and upon execution of the facilities study agreement ; 2) a tiered deposit approach whereby the initial study deposit satisfies the study deposit requirement for subsequent stages; and 3) a per MW approach.⁷

RNW acknowledges that increased study deposits may be appropriate, but suggests Bonneville set caps to avoid excessive deposit amounts. Study deposit amounts should be set at a level commensurate with the expected cluster study costs whereas security deposits should be sized to incentivize appropriate continued participation in the cluster study. RNW questions whether doubling the current deposit amounts would be sufficient to disincentivize the submission of interconnection requests to merely test the water on hypothetical projects, or if doing so would be appropriate. Of the options set out by Bonneville, RNW prefers Alternative 2 so that developers can forecast expected study costs early in the process and minimize unanticipated costs.

b. Site Control

Currently interconnection customers are permitted to provide an additional deposit in lieu of demonstrating site control. Bonneville is concerned this practice may result in projects that are not commercially viable to withdraw from the queue at later stages. To remedy these concerns, Bonneville is considering three alternatives for demonstrating site control: 1) the option set out in the FERC NOPR, whereby customers can pay a deposit in lieu of site control if customers are prohibited by regulatory limitations; 2) not allowing a deposit in lieu of site control for any reason; and 3) allowing a deposit in lieu of site control for any reason.⁸

RNW is not convinced that additional site control restrictions are warranted and suggests that Bonneville permit interconnection customers to provide a deposit in lieu of site control for any reason, consistent with other FERC-approved utility filings. As Bonneville explained in the March Workshops, PacifiCorp, Duke and Dominion all allow deposits in lieu of site control without limitation.⁹ Deposits in lieu of site control are particularly important for generation tie lines where a developer may not know exactly what the route is. RNW

⁷ Presentation at 30-37.

⁸ *Id.* at 44.

⁹ *See id.* at 42.

acknowledges that site control is a key step towards creating a viable project, but asks that Bonneville not adopt overly restrictive reforms just for the sake of doing so.

c. Commercial Readiness

Bonneville does not currently require a demonstration of commercial readiness and believes this may be contributing to late-stage withdrawals. Bonneville is considering the following commercial readiness alternatives: 1) the option set out in the FERC NOPR, which requires either an executed term sheet or the selection in a resource plan or solicitation process; 2) a tiered/linear readiness deposit; and 3) a tiered/linear readiness deposit plus an additional commercial readiness demonstration.¹⁰

RNW is looking forward to additional discussion on the merits of these alternatives but would most likely not support Alternative 2 without revisions. Any commercial readiness milestone that requires either an executed term sheet or selection in a resource solicitation plan/process would discriminate against independent power producers (“IPPs”) that generally need interconnection study results to obtain contract certainty. Bonneville is not like other utilities in the region, which have specified offtake opportunities and metrics tied to their power purchase agreements that have historically been very difficult for developers to meet. Bonneville should therefore strongly consider more flexible options—site-specific purchases, generation equipment orders, evidence of procurement of services such as environmental surveys or meteorological towers gathering data—as sufficient to demonstrate commercial readiness, at least in the early stages of the interconnection process. RNW also asks Bonneville to consider how its commercial readiness requirements might impact projects like offshore wind or pumped storage, which have unique acquisition opportunities and significantly longer lead times. Given the uncertainty around alternative, emerging technologies, it may be prudent for Bonneville to consider other reasonable demonstrations.

3. Cost Allocation for Study Costs Should be Allocated Equitably

Should Bonneville switch to a cluster study process, the agency will need a method to allocate the study costs among customers that participate in each cluster study. Bonneville is considering alternatives that allocate study costs based on the number of requests and/or a pro rata MW. Specifically, Bonneville is considering: 1) the option set out in the FERC NOPR, whereby 90 percent of the cluster study costs are allocated to customers on a pro rata basis based on the requested MWs and 10 percent is allocated based on the number of requests in the cluster; 2) allocating 50 percent by the pro rata MWs requested and 50 percent on the number of requests; 3) allocating 100 percent by the pro rata MWs; and 4) allocating 100

¹⁰ *Id.* at 44-49.

percent by the number of requests.¹¹ Of these approaches, Alternative 2 appears to offer an equitable middle ground.

4. Network Upgrade Costs Should be Allocated Based on System Impacts

Like the costs of the studies, the cost of network upgrades for each cluster must also be allocated. Bonneville is considering these reforms in two areas: 1) within a particular cluster; and 2) where the same upgrades were identified in a previous cluster.¹² Each is discussed below in turn.

a. The Allocation of Network Upgrade Costs Within a Particular Cluster

With respect to network upgrades required within each cluster, Bonneville is considering three alternatives: 1) the option set out in the FERC NOPR, whereby network upgrade costs are allocated based on proportional impact determined by a distribution factor analysis;¹³ 2) allocating by any contribution to any non *de minimis* reliability violation identified in the study; and 3) allocating based on different factors depending on the type of build.¹⁴ RNW believes the merits of these options should be discussed further, but as an initial reaction notes that Alternative 1 appears to be the most equitable because it is based on the impact a project has on the system. Conversely Alternative 3 appears to be the least equitable because it has a more attenuated connection to the impacts caused by the project, and thus, undermines cost-causation principles. Regardless of which alternative Bonneville adopts, the agency should provide a detailed breakdown of all generators contributing to a particular network upgrade, the percentage they contribute, and their respective share of any allocated costs. RNW also asks that Bonneville discuss the agency's approach to voltage and stability upgrades and document its minimum distribution factor thresholds before implementing any interconnection reforms.

b. Shared Network Upgrades Identified in a Previous Cluster

Currently Bonneville does not have a formal process or methodology to allocate network upgrade costs that are identified in multiple studies. In the Interconnection NOPR, FERC proposed to require later-queued interconnection customers to contribute to existing network upgrades if such later-queued customers benefit from the upgrades, based on certain proposed criteria and tests.¹⁵ Bonneville is considering three alternatives to allocate costs for

¹¹ *Id.* at 61.

¹² *Id.* at 68 (Bonneville refers to the latter as "Shared Network Upgrades").

¹³ FERC also discussed allocating by proportional capacity. Interconnection NOPR at PP 85-86 (noting that PacifiCorp uses the proportional capacity method).

¹⁴ Presentation at 72.

¹⁵ Interconnection NOPR at PP 98-101.

network upgrades that were identified in a previous cluster: 1) allowing subsequent customers to not fund upgrades identified in earlier clusters; 2) a five-year lookback period with a threshold distribution factor to determine whether the later request benefits sufficiently from the recent upgrade; and 3) a lookback period without a threshold where Bonneville would determine the depreciated, amortized value of the previous upgrade and then reallocate costs up to the average years that LGIA credits are paid back.¹⁶ Based on the discussion to date, RNW is not convinced that any lookback to allocate costs between clusters is necessary or appropriate. Should Bonneville adopt either Alternative 2 or Alternative 3, however, Bonneville should provide a detailed breakdown of all generators contributing to a network upgrade, the percentage they contribute, and the respective share of allocated costs.

5. Bonneville's Transition Process Should Do More Than Simply Clear the Queue

Bonneville is considering two transition plans that aim to both advance existing interconnection requests and rapidly implement reforms that will make its interconnection procedures more efficient overall. First, Bonneville is considering the transition plan set out in the FERC NOPR, which allows existing interconnection customers with late-stage requests (i.e., with a facilities study) to continue under the serial process and also establishes a transitional cluster process that allows customers without a facilities study to move forward under the new process upon demonstration of certain readiness requirements.¹⁷ Second, Bonneville is considering a hybrid transition plan that essentially mirrors FERC's proposal, i.e., late-stage requests continue under the serial process and non-late-stage requests would enter a transition queue and be subject to readiness requirements.¹⁸ Under the hybrid plan, Bonneville would work with customers to determine how to define late-stage projects and set each of the requisite commercial readiness standards. Bonneville is also considering allowing late-stage projects to opt-in to the cluster study.

RNW believes that Alternative 2 appears to provide more flexibility and looks forward to additional engagement on the appropriate thresholds. RNW also supports the option to allow interconnection customers to opt-in to the cluster process and encourages Bonneville to set a specific deadline for existing queue projects to meet the cluster study requirements. Likewise, Bonneville should consider and discuss a specific deadline in the transition process during which interconnection customers can withdraw from the queue without incurring any costs.¹⁹

¹⁶ Presentation at 75.

¹⁷ *Id.* at 88-89.

¹⁸ *Id.* At 90.

¹⁹ We note that Bonneville has not include withdrawal penalties in the scope of this proceeding.

6. Technical Study Requirements

Bonneville is considering two areas of reform that the agency has grouped together as technical study requirements: 1) access to interconnection information; and 2) affected system studies.

a. Access to Interconnection Information

Under Bonneville's current tariff and interconnection processes, obtaining a feasibility study is the primary mechanism for interconnection customers to understand whether their project is commercially viable. As FERC explained in its Interconnection NOPR, the lack of transparency for prospective interconnection customers to obtain potential interconnection costs prior to submitting an interconnection request makes it difficult to assess the viability of a project without submitting multiple speculative interconnection requests.²⁰ FERC identified two potential reforms to address this lack of transparency: 1) allowing interconnection customers to request informal interconnection studies; and 2) requiring transmission providers to publicly post an interactive visual representation of available interconnection capacity.²¹ Specifically, FERC suggested transmission providers develop a heatmap of estimated incremental injection capacity and provide a table of results showing the estimated impact of a proposed project.

Bonneville is considering three alternatives to improve access to interconnection information: 1) the option set out in the FERC NOPR, with an informal study and the posting of public interconnection information; 2) the posting of public interconnection information without an informal study; and 3) performing a multi-phase cluster study where the first phase provides information similar to the existing feasibility study.²²

As a threshold matter, RNW shares some of the concerns expressed at the March Workshops regarding Bonneville's characterization of speculative projects as the genesis for late withdrawals and cascading restudies. RNW agrees that providing meaningful interconnection information to customers could be the most significant step Bonneville could take to improve its interconnection backlog and study delays. Like Bonneville, RNW also questions whether an informal information study would typically provide customers with timely information that would enable decision making without also submitting an actual interconnection request,²³ and thus would likely support Alternative 2 over Alternative 1. That said, RNW can conceive of unique situations where an informal study could be helpful. It could

²⁰ Interconnection NOPR at PP 40-41.

²¹ *Id.* at P 39.

²² Presentation at 99-100.

²³ See *Improvements to Generator Interconnection Procedures and Agreements*, FERC Docket No. RM22-14, Comments of the Bonneville Power Administration at 3-5 (Oct. 13, 2022) (explaining that an optional interconnection study could provide little additional benefit to customers and may exacerbate delays by adding to the amount of work spread out over the same staff).

be that certain long lead time projects may not be able to demonstrate commercial readiness to participate in the cluster study, but would still benefit from something like an informal study to help inform project development and potential interconnection. There is likely an inverse relationship between these two options where the more transparent Bonneville can be with the posting of public information the less significant the informal study becomes. To that end, RNW recommends Bonneville provide a heatmap of estimated incremental injection capacity available at each bus under N-1 conditions with a five-year outlook. RNW also suggests that Bonneville utilize FERC's critical information protection processes²⁴ to make its most recent study models available so that developers can perform their own modeling.

b. Affected System Studies

Currently there is no standardized process to determine whether neighboring systems will be affected by a proposed project, which has resulted in various opaque processes and significant delay. In the Interconnection NOPR, FERC proposed standardizing affected system procedures and modeling standards to increase the speed of the interconnection queue processing.²⁵ Bonneville is considering two affected system study process alternatives: 1) the process and timelines set out in the FERC NOPR; and 2) holding all affected system studies until the next interconnection cluster study.²⁶ RNW believes transparent affected system study parameters will increase cost and timing certainty, notes that Alternative 2 appears to be more efficient overall, and further recommends that any dynamic modeling not be concluded until after interconnection customers elect to advance into Phase 2 system impact studies.

Bonneville may also reform its affected system modeling requirements, which is currently geared toward synchronous generators.²⁷ Bonneville is considering: 1) the option set out in the FERC NOPR, which would revise the LGIP to collect information needed for non-synchronous generators; and 2) retaining the current LGIP process and adding the new more detailed modeling requirements in Bonneville's Technical Requirements for Interconnection and Business Practices.²⁸ RNW prefers the modeling standards be included in Bonneville's LGIP. We also look forward to additional customer engagement on Bonneville's thresholds for any electromagnetic transient modeling.

7. Bonneville's Position on the Co-location of Resources Should be Retained

At the workshop, Bonneville explained its proposal to revise its tariff to reflect the flexibility it is already providing to study certain co-located resources. For example, because

²⁴ Additional information on FERC's CEII requirements is available at <https://www.ferc.gov/ceii>.

²⁵ Interconnection NOPR at PP 182-193.

²⁶ Presentation at 105-06.

²⁷ *Id.* at 108.

²⁸ *Id.* at 113-14.

Bonneville determines generating capacity in AC, the agency does not interpret a change on the DC side as a material modification, which would require a new interconnection request. This is consistent with FERC's proposal to allow capacity increases as nonmaterial modifications where there is no increase to the service level or need to study the modification. RNW acknowledges that Bonneville is not proposing any substantive change, but agrees with Bonneville that this process should be set out in Bonneville's tariff. In particular, Bonneville should work with customers to define "co-located resource" and "hybrid resource" which can impact metering, dispatch response and future market registration requirements.

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RNW appreciates Bonneville's consideration of these comments and the recommendations contained herein. Nothing contained in these comments constitutes a waiver or relinquishment of any rights or remedies provided by applicable law or under Bonneville's tariff or otherwise under contract.

Respectfully submitted on behalf of Renewable Northwest,

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